## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: James L. Leach, et al.

Serial No.: (not yet assigned)

(Continuation-in-part of USSN: 10/277,259; filed

October 22, 2002)

Filed: March 10, 2004

For: USE OF SOLUBLE MONOVALENT OLIGOSACCHARIDES AS INHIBITORS OF

HIV-1 FUSION AND REPLICATION

Attorney Docket No.: 6992.US.P1

Examiner: (not yet assigned)

Group Art Unit: (not yet assigned)

EXPRESS MAIL NO.: EV314258291US
Certificate of Mailing under 37 CFR §1.10:

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service as Express Mail Post Office to Addressee Service with sufficient postage in an envelope addressed as follows:

MS Patent Application Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Date of Deposit: March 10, 2004

INFORMATION DISCLOSURE STATEMENT

MS Patent Application Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

The following information is submitted, pursuant to 37 CFR §§1.97-1.98 in accordance with Applicant's duty of disclosure under 37 CFR §1.56. This submission is not intended to constitute an admission that any patent, publication or other information cited herein is "prior art" as to the invention claimed. In accordance with 37 CFR §§1.97(g)-(h), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that other material information as defined by 37 CFR §1.56(a) exists.

Applicants submit herewith Form PTO-1449 listing the references known to them. Applicants respectfully request that the Examiner (1) initial each reference listed on the enclosed Form PTO-1449 indicating that the Examiner has considered and made those references of record in this application and (2) return a copy of the initialed Form PTO-1449 to Applicants. Copies of references were previously submitted in U.S. Serial No. 10/277,259, filed October 22, 2002, from which this application corresponds.

This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits under 37 CFR §1.97(b). Accordingly, no charge is required.

James\_L

ABBOTT LABORATORIES

Customer No.: 23492 Telephone: (847) 935-4314 Facsimile: (847) 938-2623 Gabryleda Ferrari-Dileo Registration No. P55,174 Attorney for Applicants

Respectfully submitted,

Leach, et al

**DATE: March 10, 2004** SHEET 1 of 1 Form PTO - 1449 (Modified) FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (Modified) PATENT AND TRADEMARK OFFICE ATTY, DOCKET NO. SERIAL NO. 6992.US.P1 APPLICANT INFORMATION DISCLOSURE STATEMENT BY APPLICANT J.L. Leach, et al. FILING DATE GROUP (Use several sheets if necessary) March 10, 2004 (37 CFR 1.98 (b)) **U.S.PATENT DOCUMENTS EXAMINER** ISSUE SUB FILING INITIAL PATENT NUMBER DATE **PATENTEE CLASS CLASS** DATE <u>A1</u> US 5,945,314 08/31/1999 P. Prieto FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION **PUBLIC-**TRANS-DOCUMENT NUMBER **ATION** COUNTRY OR **SUB LATION** DATE PATENT OFFICE CLASS CLASS YES NO **B**1 WO 00/29556 05/25/2000 **WIPO** OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication) C<sub>1</sub> Hakomori & Igarashi, "Functional Role of Glycosphingolipids in Cell Recognition and Signaling", J. Biochem. 118: 1091-1103 (1995) C2 Adachi et al., "Production of Acquired Immunodeficiency Syndrome-Associated Retrovirus in Human and Nonhuman cells Transfected with an Infectious Molecular Clone", J. Virology 59:284-291 (August C3 Puri et al., "Human Erythrocyte Glycolipids Promote HIV-1 Envelope Glycoprotein-Mediated Fusion of CD4<sup>+</sup> Cells", Biochem. Biophys. Res. Comm. 242: 219-225 (1998) Puri et al., "The Neutral Glycosphingolipid Globotriaosylceramide Promotes Fusion Mediated by a CD4-C4 Dependent CXCR4-Utilizing HIV Type 1 Envelope Glycoprotein" Proc. Natl. Acad. Sci. USA 95:14435-14440 (November 1998) C5 Hammache et al., "Specific Interaction of HIV-1 and HIV-2 Surface Envelope Glycoproteins with Monolayers of Galactosylceramide and Ganglioside GM3" J. Biol. Chem. 273:7967-7971 (April 1998) C6 Hug et al., Glycosphingolipids Promote Entry of a Broad range of Human Immunodeficiency Virus Type 1 Isolates into Cell Lines Expressing CD4, CXCR4, and/or CCR5" J. Virology 74:6377-6385 (July C7 Hammache et al., "Human Erythrocyte Glycosphingolipids as Alternative Cofactors For Human Immunodeficiency Virus Type 1 (HIV-1) Entry: Evidence for CD4-induced interactions between HIV-1 gp120 and Reconstitutes Membrane Microdomains of Glycosphingolipids (Gb3 and GM3)" J. Virology 73:5244-5428 (June 1999) **C8** Berger et al., "Chemokine Receptors as HIV-1 Coreceptors: Roles in Viral Entry, Tropism and Disease" Ann. Rev. Immunology. 17:657-700 (1999) C9 Gartner et al., "The Role of Mononuclear Phagocytes in HTLV-III/LAV Infection" Science 233: 215-219 (July 1986) C10 Muñoz-Fernandez et al., "Relationship of Virologic, Immunologic and Clinical Parameters in Infants with Vertical Acquired Human Immunodeficiency Virus Type 1 Infection" Pediatric Research 40:597-602 C11 Merritt & Hol, "AB5 Toxins" Current Opinion in Structural Biology 5:165-171 (1995) C12 Grosh-Wörner et al., "An Effective and Safe Protocol Involving Zidovudine and Caesarean Section to Reduce Vertical Transmission of HIV-1 Infection" AIDS 14:2903-2911 (2000) Kilov et al., "Shiga-Like Toxins are Neutralized by Tailored Multivalent Carbohydrate Ligands" Nature C13 403:669-672 (February 2000)

DATE CONSIDERED

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

**EXAMINER**